Oklahoma
CURRENT FARM ECONOMICS

Vol. 23 No. 4 August, 1950

The President's Invitation . . .

You have a most cordial invitation to attend the 1950 Summer Session of the American Institute of Cooperation in Stillwater. This annual meeting will begin Monday, August 21st, and conclude on Thursday evening, August 24th. It is the first time a national agricultural organization of this importance has ever met in Oklahoma. I am sure the program will be of benefit and interest to all farm friends, and I urge you to come to our campus for this meeting.

Henry G. Bennett
President
Oklahoma A. & M. College

On The Cover

The *American Institute of Cooperation* will meet on the Oklahoma A. & M. college campus August 21-24, and plans for the national meeting were discussed recently by the four men pictured on the cover. Seated are Dr. Adlowe L. Larson, professor of marketing, left, and Dr. Henry G. Bennett, A. & M. president; standing, Howard S. Whitney, assistant professor of marketing, left, and James R. Enix, assistant economist of the Extension division. Larson is general chairman of the AIC conference, and Whitney and Enix are assistant general chairmen.

Current Farm Economics

OKLAHOMA

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L. A. PARCHER, Editor | PETER NELSON, Dept. Head

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DIVISION OF AGRICULTURE
Oklahoma A. & M. College, Stillwater

Oklahoma Agricultural Experiment Station
W. L. Blizzard, Director
Louis E. Hawkins, Vice Director

Oklahoma Agricultural Extension Service
County Agent Work;
Shawnee Brown, Director

Cooperative extension work in agriculture and home economics, Oklahoma Agricultural and Mechanical College and United States Department of Agriculture, cooperating. Distributed in furtherance of Acts of Congress of May 8 and June 30, 1914.

The Research Program of the Oklahoma Agricultural Experiment Station

By GEORGE F. CHURCH, Editor
Oklahoma Agricultural Experiment Station

The keys to an understanding of Oklahoma's agriculture are two: The relative recency of settlement; and the great diversity of climate, soil, and terrain. Some would add a third, petroleum development. But the effect of oil production on agriculture is highly debatable. Indeed, Oklahoma Agricultural Experiment Station economists have spent much time in patient spadework on this topic and still have a great deal to learn about it. So introduction of that topic here would be more confusing than enlightening.

Agriculture in Oklahoma is so new that some of the farm land is still managed by the men who first plowed it. Little of the land is beyond its third generation of ownership. Therefore Oklahomans have not had time to build up a traditional body of knowledge on how to handle their soil.

We *have* had time, however, to learn that Oklahoma's land cannot always be handled the way it was in older areas. For one thing, there's that matter of diversity. Oklahoma includes every condition found from the Coastal Plains of the South Atlantic States to the High Plains just below the Rocky Mountains. Half the nation's geographic differences are here compressed into less than one-fortieth of its area. Oklahoma has portions of the Corn Belt, the Cotton Belt, and the Old West. In between lies a transition area, where north and south, east and west, meet and merge.

Oklahoma's annual rainfall ranges from more than 50 inches in the southeast to less than 20 at the Panhandle's western tip, and seasonal distribution also varies from east to west (see map).

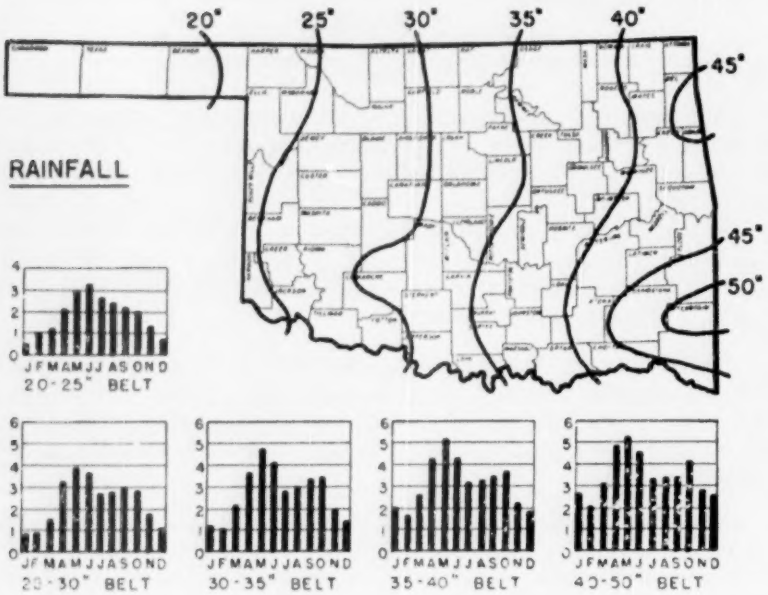
Altitude rises from less than five hundred feet in the southeast to almost five thousand at the New Mexico line.

Growing season is 240 days along the Red River in the southeast, and only 180 in the Panhandle.

Two Major Soil-Type Dividing Lines in Oklahoma

Oklahoma stands astride two of the nation's major soil-type dividing lines. West are the Permian Redbeds, and the pedocal soils where minerals accumulate. Eastward the soils are Pennsylvanian in geologic origin, and higher rainfall leaches out the lime and phosphates.

The eastern Ozarks resemble the Appalachians; there are bayous



Lines on the map show Oklahoma's average annual rainfall, which varies from more than 50 inches in the southeast to less than 20 inches in the Panhandle. The small graphs show seasonal distribution by months, an important factor in adjusting cropping systems to moisture available.

and cypress in the southeast; and westward are the High Plains, "the short grass country."

Oklahoma's major cotton area lies, not toward the Cotton Belt, but southward toward the Staked Plains of Texas. Some of the state's best corn land is in the south central counties, away from the Corn Belt corner. Heaviest production of milk for cheese and butter lies west of Oklahoma City, out toward the plains. Two of the nation's centers of watermelon and watermelon seed production lie along the old Chisholm trail, in one-time cattle country; and two of the state's major beef cattle areas lie eastward, in the Osage Hills and the southeast central limestone prairies.

Oklahoma's people, too, are diverse. They moved in from the settled areas north, east and south, each group bringing the folkways and the traditional farming practices of their native states.

Oklahoma's diversity means opportunity to produce a wide variety of products. But it also imposes a severe strain on the state's principal agricultural research unit, the agricultural experiment station of the

Oklahoma A. & M. College. Diversity of possible products increases many-fold the number of subjects needing agricultural research.

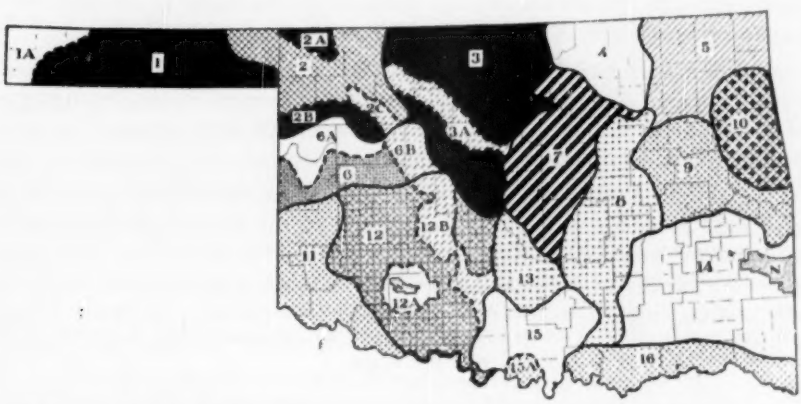
Members of the *American Institute of Cooperation* are, of course, especially interested in research in agricultural economics and rural sociology, and the research in those fields will serve to illustrate what is faced by each the Oklahoma Agricultural Experiment Station's 13 departments.

Oklahoma Has 16 Major Type-of-Farming Areas

The station's economists have tentatively outlined 16 major type-of-farming areas in the state (see map). Each of the 16 includes many minor variations. Farm management studies, particularly, must be multiple in order to cover the many different combinations of conditions existing in Oklahoma. For example, a recently completed analysis of cotton production methods in this state had to be prepared and published for each of three areas: The Arkansas River Valley and adjacent uplands, the lower Red River area, and the southwestern plains section.

The Station's first agricultural economics project of record was a study of tenure and the economic status and progress of farmers. The interest in tenure studies still continues, which suggests the complexity of this problem.

The second "ag. ec." project was labelled, "Taxation as it affects agriculture." Today's projects are pointed toward securing data that will provide the raw material for public and private thinking on tax



Sixteen major type-of-farming areas are outlined on the map, prepared by agricultural economists in an analysis of farming opportunities in Oklahoma. Each of the 16 areas includes many minor variations. The State's wide variety of soils and climate makes possible a great diversity in the kind of crops and livestock which can be produced.

problems; for example, the types of landowners and the kind of property characteristically held by each type. Both taxation and ownership studies today tend to cluster around the relation of petroleum (subsurface) and agricultural (surface) rights in land — a not unnatural development in a state where more often than not the surface and subsurface are under control of different persons, and where the subsurface rights are freely traded and subdivided without too much attention to surface holdings.

Third project in the agricultural economics series introduced two subjects of research that have since developed greatly: "cotton" and "marketing." It is interesting to note that the number of cotton marketing projects has been considerably greater than the livestock and grain marketing projects combined, reflecting the economic readjustment still under way in King Cotton's erstwhile territory. The most recent project in this field is titled: "Marketing mechanically harvested cotton."

Research Program in Oklahoma Must Be Varied

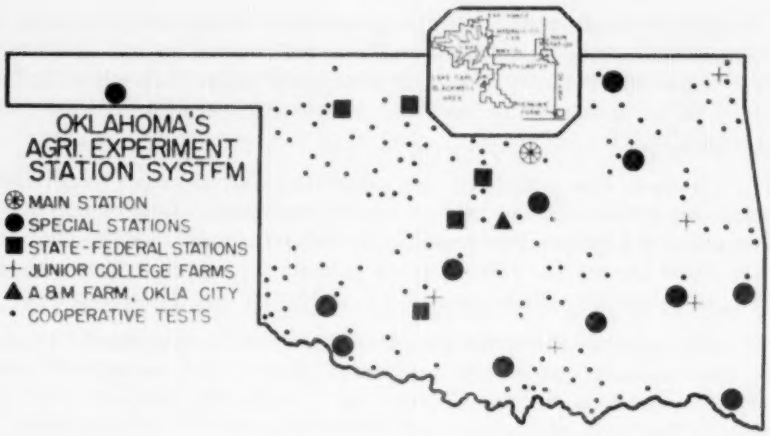
The farm research program faced with the diversity of conditions existing in Oklahoma must of necessity be varied, and broad in scope. Also, it must be flexible to meet rapidly changing conditions in an area whose resources are just beginning to be recognized.

Variety, broad scope, and flexibility in the Oklahoma Agricultural Experiment Station's research program are provided by "on the spot" research. Centers are set up in various parts of the state, wherever some special problem or opportunity exists. These centers range from permanent locations, on land owned or under long-time lease, to one-year tests on land furnished by a cooperating farmer (see map).

The Oklahoma Agricultural Experiment Station now has 17 special stations five of them in cooperation with the United States Department of Agriculture. Local or area tests are conducted at seventy-five to a hundred locations each year.

Each location, permanent or temporary, has a definite place in a state-wide program. Each has the benefit of the laboratory equipment and trained scientific personnel of the Main Station at the Oklahoma A. & M. College at Stillwater. Each is, in fact, a part of one unified, state-wide system of agricultural research—a going concern, ready to apply the methods of science to solving agricultural problems wherever and whenever they may arise within the state.

An on-the-spot research program not adequately integrated with, and supported by, the work of the Main Station at Stillwater could have only two outcomes. Either there would be a scattering of poorly supported research locations without adequate laboratory facilities and with inexperienced and poorly trained personnel, or the cost would be pro-



The Oklahoma Agricultural Experiment Station—Main Station, special stations, and temporary locations—provides an "on the spot" research program. The Lake Carl Blackwell area and Perkins farm (top of map) are included in the Main Station headquarters at Oklahoma A. & M. college, Stillwater. There are 17 special stations, with five of them in cooperation with the United States Department of Agriculture. Each center of research, permanent or temporary, has a definite place in a state-wide program. Each has the benefit of the laboratory equipment and trained scientific personnel of the Main Station.

hibitive. The state-wide system of research meets the need at the minimum cost consistent with effective research. Results from each location are immediately available to farm people throughout the state, wherever the results may apply.

Teamwork Is Important in Modern Research

The Oklahoma Agriculture Experiment Station—Main Station, special stations, and temporary locations—is primarily a group of men. Each man is picked for his job because of experience and thorough training in some scientific specialty related to agriculture. Two or more of these men usually work as a team. The day of the long-haired, eccentric scientist isolated in an attic is gone, if it ever existed. Teamwork is as important in modern research as it is in modern football.

Research projects of broad scope seldom are organized from the top down. Rather, such a program builds up project by project, as need for information arises on farms and ranches.

The final step in the agricultural research process is putting the results to work on the farms and ranches of the state. That, under provisions of the various laws establishing the land-grant college system, is the task of the Oklahoma Agricultural Extension Service, another branch of the Oklahoma A. & M. College.

Both research and extension people have recognized the need of an intermediate step that is half research, half extension. It is the step which industrial research calls "the pilot plant stage." A scientific fact proved in a test plot is useless until it is integrated with existing farm practices.

To meet this situation, the Oklahoma Agricultural Experiment Station has established the post of farm coordinator. One of the state's most successful county agents was picked for the job. Under his guidance, about twenty carefully selected farmers try out new crops, equipment, and practices which research has indicated may prove valuable.

The idea has taken hold so well that promising research is being put into practice before the researcher himself has completely overcome the cautious reserve imposed by a scientific method. For example, a few tests in southwestern Oklahoma showed the possibility of improving sandy lands with a loam or clayey subsoil by deep plowing to put more fine-textured material on the surface. The farm coordinator encouraged trial of the method by a few of his cooperators. Today the practice is spreading as fast as equipment can be obtained. Indeed, the soils scientist who started the experiments has been forced into what some might consider premature publication of his results, to prevent use of the method on unsuitable soil types and to insure that correct post-plowing management is given.

Station Now Has 240 Active Projects

The Oklahoma Agricultural Experiment Station currently has about 240 active research projects under way. As indicated above, many of these relate to "grassland farming." This program includes all phases of the subject, from breeding better grasses to the color of the fat in grass-fattened beef.

Soils research has been an important program ever since this Station was established in 1891, and continues to be. Currently, the soils program includes some 20 projects, not counting those limited to simple fertilization tests with a specific crop.

The crops program includes at least a dozen projects each on corn, cotton, sorghums, and small grains, in addition to the extensive programs on pasture and forage crops and legumes for soil improvement.

In horticultural crops research, emphasis is put on soil management, on breeding Oklahoma-adapted varieties, and on methods of growing a wider variety of crops for shipment and for processing.

Dairying and poultry have emphasized the utilization of feedstuffs which grow well in Oklahoma, and improvement in the quality of the State's poultry and dairy products.

The agricultural engineering research program, recently greatly expanded, has projects in the fields of irrigation, cotton mechanization, and development of other types of machinery and farm structures adapted to Oklahoma conditions.

Forestry, a relatively new department here, emphasizes farm forestry.

Home Economics research has projects on the uses of Oklahoma-grown foods and fibers; and rural sociology emphasizes population and tenancy studies.

The Station also, of course, has the usual projects in variety testing, insect and plant disease control, etc., common to all state experiment stations.

Agricultural Economics

The Agricultural Economics Department which issues this bi-monthly publication is a division of the School of Agriculture and the Agricultural Experiment Station. People often ask: "What is the job of a Department of Agricultural Economics?" Perhaps that question can be answered by a partial listing of titles of published results of research over the past twenty years.

Such articles and bulletins as the following will indicate the scope of interest of this Department:

Cooperation:

"Cooperative Marketing and Purchasing by Oklahoma Farmers."
"Agricultural Cooperation in Oklahoma."
"Membership Relations in Farmer Cooperatives."

Cotton:

"The Effect of Cotton Driers on Grades of Oklahoma Cotton."
"The Effects of Cleaning and Conditioning Equipment of Gins on Cotton Grades in Oklahoma."

Credit:

"Sources and Use of Credit for Oklahoma Farmers."

Land Use:

"Agricultural Land Use as Influenced by Mineral Development."

Management:

"Farm Production Costs."
"Does a Program of Conservation Interfere with Farm Operation?"

"What is Balanced Farming?"
"Farm Income and Stability of Farm Plans."
"Large Scale Business Management in Farming."
"Milk Price and Feed Price Relationships in Oklahoma."
"Farm Returns from Pasturing Wheat."
"Which Farm Dollar Goes Farthest?"
"A Method of Determining Rates for Farm Machine Work and Custom Work."

Statistics:

"A Statistical Handbook of Oklahoma Agriculture."

Taxation:

"Growth and Distribution of Oklahoma Farm Taxes."
"The Principle of the Graduated Land Tax."

These titles indicate the wide variety of topics in which the Department has done research. The list is far from complete.

The situation reports which appear in each issue of *Current Farm Economics* are the result of research on the demand, supply and price of the various commodities discussed. These reports represent the best judgment of the writer, after studying all sources of information, of what the outlook is for a particular commodity.

Students in the Department of Agricultural Economics are trained in business management and in the study of economic conditions relating to agriculture. Graduates are prepared for such work as: farming; college teaching; research; agricultural extension; managership of farms; managers of buying and selling associations; work with farm real estate and farm mortgage companies, banks, merchandising firms, meat packers, gins, and elevators. Many graduates become county agents, secretaries of chambers of commerce, and agricultural advisors to business houses and railway companies. Many take employment with state and federal agencies.

In general, it probably can be said that Agricultural Economists at this Station are interested in anything which points toward helping the farmer bring into proper balance the various things he uses for production so that his farm will yield its highest continuing income.—*L. A. Parcher.*

Membership Relations in Farmers' Cooperatives*

Membership relations are as important as sound financial management to the success of a farmers' cooperative. Such a cooperative is com-

* This is a reprint of Oklahoma Agricultural Experiment Station Circular C-122.

posed of farmer members who form their own organization to provide services for themselves. In Oklahoma and most other states, each member has one vote in his organization, which means that democratic control is exercised if the member takes advantage of the ballot. If the member is to cast his ballot intelligently and be loyal to the organization, it is necessary that information relating to the cooperative be supplied to membership.* If management carries out the wishes of the member, then information on their wishes must reach the management. In the ideal case there would be a free exchange of information between the two groups. Knowledge by both groups of the desires and activities of the other will bring about a more effective use of the cooperative by its members.

The need for membership relations work is generally recognized. In some cases it may happen that a cooperative making a success financially may neglect its members by failing to give them information about their own business. Many cooperatives which have failed have been guilty of membership neglect. In other cases, the management may not want to give information, believing that the information will reach their competitors and consequently cause them damage. That the information might injure them competitively by aiding their competitors apparently is not a great possiblity. A survey several years ago of 61 cooperative fieldmen showed 45 fieldmen favoring giving to members all the information they might ask for concerning the association.† Only five of the 16 objecting did so on the grounds that the information might reach competitors.

In most cases the membership job is not purposely neglected. Rather, the pressure of other duties prevents giving attention to the problem. Lack of knowledge of the cooperative by its members encourages suspicion and prevents the cooperative from operating as effectively as it might. Although the extent of any membership relations programs will be limited by its cost, no program at all might be more costly than a program of moderate size.

Types of Information.—The information may be separated into the two groups previously mentioned:

I. Information to members from the cooperative.

II. Information to the cooperative from the members.

The *first* type of information is the one usually considered in membership relations. As the member is a part-owner of the organization, he in interested in detailed information on operation, just as are alert owners of most businesses. The questions which he asks in his own mind might be listed in the following manner:

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* It is also necesary that information be interchanged between the cooperative and the public.

† J. W. Jones, *Membership Relations of Cooperative Associations*, Farm Credit Administration, Cooperative Division, Washington, D. C., Bulletin No. 9, October 1936, pp. 71-72.

1. *Volume.* How much business did we do this past year? How does it compare with other years? What are the causes of any changes?

2. *Margins.* How large are the margins on the products handled? How do they compare with (a) those of previous years, (b) those charged by competing firms, and (c) those charged by other cooperatives?

3. *Costs.* How much does it cost to market our products? Are costs being reduced? How do they compare with margins? Which are the largest items making up costs? Are the costs relatively flexible or fixed? What are the possibilities for future cost reduction?

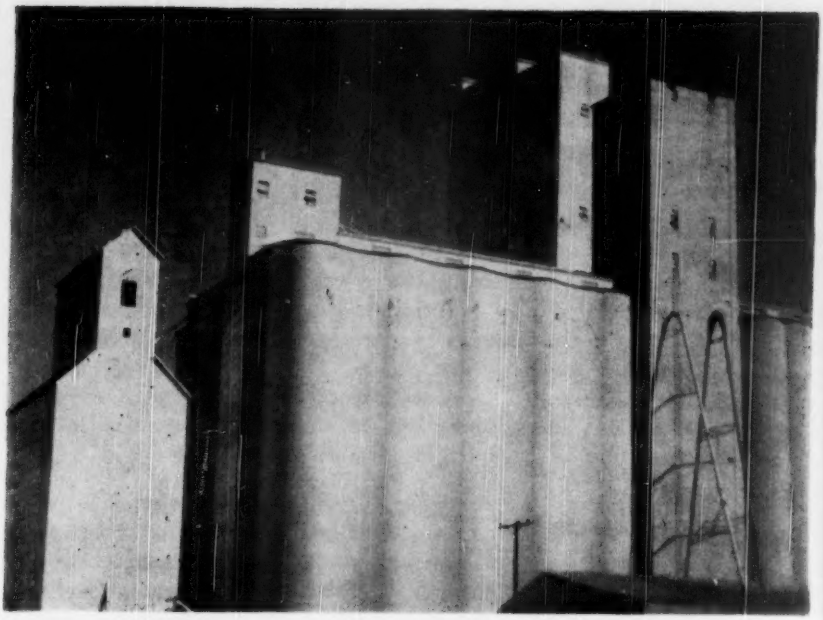
4. *Savings.* How large are the savings compared with earlier years? How do they compare with changes in volume? What share of margins goes to savings? How do the earnings per unit handled compare with those of similar cooperatives? What shares of the savings go to (a) stock dividends, (b) cash patronage dividends, (c) deferred patronage dividends, (d) stock purchases, (e) allocated reserve, (f) general reserve, (g) revolving fund, and (h) other uses? How have the cumulative totals of these items been changing?

5. *Balance sheet.* How large are assets, liabilities, and net worth? How do they compare with earlier years?

6. *Plans.* What plans does the organization have for the future? Is new construction contemplated? Will more products be handled?

7. *Outlook.* What are the possibilities of this cooperative in future years? Are prices to increase or decrease? Are the prospects for an increasing or decreasing demand for the products handled? How will government programs affect operations?

The *second* type of information is that which the organization needs to know about its members. In most cases this type of information is obtained only incidentally. This is true not only of cooperatives but also of other businesses which do little to find out about the wishes of their customers. This field of checking on the wishes of consumers has expanded greatly within the last decade. Its effective use by cooperatives would make possible better service by the cooperative to its members. Answers to such questions as the following would help determine action by a cooperative:



Plans for the future often include new construction to handle more products and provide better service. Picture above shows contrast of old and new buildings of a cooperative located in north central Oklahoma.

1. *Services.* Are the services now being provided adequate? Which would you like added? How much would you be willing to pay for this added service? Should the organization operate on a cash basis? Should products be trucked to and from the country?

2. *Products.* Should other products be handled? Should some now handled be dropped?

3. *Financial record.* Are you satisfied with the savings of the cooperative? What improvements would you suggest? Should savings be handled as they are now?

4. *Policies.* Do you favor each of the policies (listed) now followed by your cooperative? Do you think that storage capacity should be greatly increased at present? What changes would you like to see brought about in the association?

Information Methods. A wide variety of methods is available for presenting information to members* and for obtaining data on their at-

* The bulletin by Jones, previously cited, is an excellent source on membership relations.

titudes. The program used varies with the size and type of organization. Small associations could not afford a costly program. Some information methods are suggested below:

A. *Direct Personal Contact.* These methods are valuable both for presenting and obtaining information.

1. *Meetings.* The annual meeting of the cooperative is the most common means of information exchange. It must be well planned.* Here is information concerning the cooperative presented to the members in the form of reports from the management. In addition, management is directed by the ballots in the selection of directors and may obtain views from the floor on matters of policy. Other meetings such as summer picnics, neighborhood schoolhouse and farm home meetings, and special meetings of the entire membership may give a better mutual understanding.

2. *Employees.* Employees may greatly aid membership understanding. If they are informed about the affairs of the association and are encouraged to explain them, the members may become better informed. Conversely, ideas of members may be transmitted to the association. The success of this method is dependent on the extent that the employees meet the members. Fieldmen can be of great aid in this respect. Any employees contacting members, however, can be of some help.

3. *Board of Directors.* Members of the board of directors, as the chosen representatives of the membership, have an opportunity to keep members of the cooperative informed and a duty to keep the management informed of what the members want. In large organizations the successful performance of this job may be with other aids.

4. *Advisory Group.* Sometimes advisory groups or councils can aid in the two-way transmission of information. They are usually selected to cover the entire area served by a cooperative. They may be called in for advice and for aid in explaining cooperative policies to the membership.

5. *Interviews and Questionnaires.* Of aid in determining the wishes of members are personal interviews and questionnaires. The questionnaire may be used as part of the interview. The

* For a discussion on planning for the annual meeting see French M. Hyre, *Making the Most of Your Co-op Annual Meeting*, Farm Credit Administration, Cooperative Research and Service Division, Washington, D. C., Miscellaneous Report No. 92, November 1945.

object is to determine the members' wishes by contacting members personally or by mail.

B. *Printed Information.* Printed information may be supplied members to inform them about association affairs or about related problems.

1. *Reports.* Audits are frequently printed and supplied to members. Emphasis should be placed on making them understandable to the average member. Relatively few members will likely be familiar with accounting terminology.

2. *Miscellaneous Pamphlets.* Miscellaneous pamphlets relating to problems concerning the cooperative may be supplied, such as annual outlook, production advice, and analysis of income tax questions.

3. *Newsletters and House Organs.* Printed or duplicated information is an effective means of getting information to members.* Its success is largely dependent upon the effort and skill put into editing. A house organ should be more than a series of clippings from other sources. It should attempt primarily to inform members on the affairs of their association.

4. *New Stories.* As stories about cooperatives and their members are of interest to readers in most areas, attempts to keep newspapers informed will likely prove profitable. Advertising space is frequently used to inform members and the public.

C. *Radio.* The radio is being used by some cooperatives, particularly the larger organizations covering a wide area. The use of news and market broadcasts has much to recommend it. A survey by the Federal Communication Commission shows that 81 percent of farm people having radios listened to programs giving market reports, and talks on farming.** Market reports are second only to news broadcasts. Several of the larger cooperatives in Oklahoma are using daily broadcasts.

D. *Contests and Scholarships.* Contests with awards given may be used to stimulate cooperative thinking. They may be of various types such as speakings, essay or quiz contests. Scholarships have been given by many organizations which permit young men to attend cooperative short courses. One organization in Oklahoma has given college scholarships.

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* Several Oklahoma cooperatives use these forms of printed information.

** Cited in "Farmers Prefer Broadcasts," *Marketing Activities*, January 1946, USDA, PMA, Washington, D. C., pp. 19-20.

A wide variety of methods is available for presenting information to cooperative members, and radio, through use of news and market broadcasts, has much to recommend it. Some cooperatives present daily broadcasts of market reports and agricultural news which are of particular interest to farm people.

The lists of types of information and of the information methods might be extended even further. Costs will certainly limit the extent of any membership program. Whatever the means used, the object should be to enable the cooperative to operate more effectively as a result of the exchange of information between the cooperative and its members.—*Adlowe L. Larson.*

College Training and Marketing Research Useful to Cooperatives

(EDITOR'S NOTE: This article was written primarily for a group of persons having a special interest in cooperative organizations. Naturally, therefore, it lays stress on the services the land-grant colleges

offer to cooperatives. It should be noted, however, that the services mentioned herein are equally available and equally useful to all branches and units of the nation's marketing system, whether individually managed, partnership, corporation, or cooperative.)

Farm production has become highly specialized in recent years. The farmer no longer produces primarily for home consumption but produces for unknown consumers both in the domestic and foreign markets. This trend plus governmental activities concerning agriculture has caused the farmer to be more conscious of the necessity of being not only a good production technician but also of possessing a better understanding of the economic and social forces existing within the economy.

Coupled with specialized production has been the necessity for a highly specialized marketing system. Consequently, specialized marketing agencies and methods have developed to aid in moving goods from the producer to the consumer. As the marketing system has become more complex, business firms, including cooperatives and other marketing agencies, have realized the need for better trained personnel and have encountered many problems on which additional research is needed. They are turning to the educational institutions as a source from which to obtain needed personnel and research. Specifically in the case of the land grant colleges, the schools of agriculture are providing courses which will better equip individuals to fill positions of responsibility with agricultural marketing agencies. Also, through the agricultural experiment stations, more research work is being directed towards the solution of marketing problems. This work has been aided by the passage of the Research and Marketing Act, which granted federal funds specifically for marketing research.

College Training of Personnel

A general tendency has existed with cooperative associations in the past to employ individuals for key administrative positions who did not have adequate training or lacked the experience necessary to fulfill the requirements for the position. Quite frequently an individual would be selected on the basis of the fact that he would accept the position for a lower salary than other applicants. With some cooperatives, although their salaries were in line with other business firms, they were unable to secure desired employees since the individual could receive greater benefits, such as a retirement plan and health insurance, from other business organizations. As a result of this situation, many cooperatives found themselves in the position that they could not adequately compete in the labor market for personnel. In many cases, cooperatives have actually failed as a result of poor and inefficient management. If failure

did not result for an association poor management often became the limiting factor for progress and growth. In view of these conditions, and since many cooperative leaders realize that cooperatives, basically, differ very little from other business organizations, they have come to the realization that they must improve the quality of personnel employed if they are to compete successfully with other types of business. This has been accomplished in many cases by the employment of college trained personnel.

What Do Cooperative Leaders Want in a College Training Program?

It is difficult to say exactly what cooperatives desire in the educational program for prospective employees. Some may feel that individuals, upon completion of their college education, should be able to fill positions of responsibility with very little additional training. In general, however, most business firms realize the necessity for on-the-job type of training before an employee can assume the responsibilities of a major administrative position. In a study conducted in Michigan this past year, forty cooperative leaders were asked to rank a group of college subjects in the order of importance for prospective employees.* It is interesting to note that public relations ranked first and business management, second. The more technical subjects were ranked lower on the list and in some cases, they were not even included in the first ten subjects. These results may not hold true for all cooperatives in the United States, but it does indicate an attitude that has been prevalent in industry and business in recent years. These cooperative leaders and other employers are primarily interested in hiring individuals with capacity rather than just highly trained technicians.

How Do Colleges Supply These Needs?

Most colleges are not in a position to offer course work directed towards training for specific positions. College course work is designed to give students a basic background in principles and does not endeavor to teach them actual operating practices of specific business organizations. Instead they must offer courses desired by the greatest number of students. However, with increased college enrollment in recent years, the variety of courses being offered has increased substantially. By careful selection of courses, throughout his college career, the student may direct his education for employment in a specific field.

Turning specifically to the field of cooperation, all land grant colleges offer courses that will tend to give the student an adequate background for employment with cooperative marketing or purchasing

* Ulrey, O., "Future Leaders Need Training in Many Fields," *News for Farmers Cooperatives*, September 1949, p. 16.

associations. One or more courses devoted entirely to cooperative marketing of agricultural products are offered in all of the land grant colleges. For example, in our own institution, Oklahoma A. & M. College, one course in cooperative marketing is now being offered in the Department of Agricultural Economics. This course is designed to give the student a working knowledge of the organization and operation of cooperative associations. This knowledge, of course, is as valuable to the man who must compete with a cooperative as it is to the man who must manage one or the farmer who is a cooperative member.

Material covered in the cooperative marketing course at this college includes history and principles of cooperative marketing and purchasing associations; types of cooperatives; legal basis of agricultural cooperatives; organizing cooperatives; functional relationships of cooperative associations with emphasis upon management, financing, membership relations and pooling and limitations and possibilities of cooperatives. It is a required course of all departmental majors and is usually taken during the junior year. It has been the custom in the past in this course to have various cooperative leaders discuss with the class various phases of cooperation with special emphasis upon their respective organizations. This has tended to give the students a better understanding of some of the practical problems facing operating associations and the kind and distribution of cooperatives in Oklahoma.

Discussion of cooperatives as a form of business organization is not limited to this one course. Another departmental course in which definite reference is made to agricultural cooperatives is the agricultural finance course; attention is directed towards various types of agricultural cooperative credit associations with major emphasis upon the Banks for Cooperatives, National Farm Loan Associations, and Production Credit Associations. Reference to cooperation is made in various other courses in the department, especially in the beginning course in agricultural marketing and three advanced marketing courses. A special problems course is offered in the department where students have the opportunity of selecting a particular problem and carrying on additional research. These problems frequently deal with cooperative marketing and purchasing. Research related to cooperatives, also, serves as material for Masters' theses. In addition, some discussion of cooperatives is presented in various courses in the School of Commerce.

In order to insure adequate training for employment with a cooperative association or other business handling farm products or selling to farmers, these more specific courses should be supplemented with courses taught in other departments of the college. Courses in economics, business administration, accounting, personnel management and business law would prove beneficial. For those interested in mar-

keting of specific commodities, courses in the technical agriculture departments should be included. For example, a student desiring employment with a grain elevator should take courses offered in the agronomy department, such as commercial grain grading and cereals. This is important since the student needs a comprehensive understanding of the methods and techniques of production as well as those associated with marketing. By careful selection of courses, the student should complete his college work with adequate training to become an effective employee.

Marketing Research

Many problems arise with cooperative marketing and purchasing associations on which additional research is needed. Often these problems are of a technical nature and are faced by all agencies marketing certain commodities. Other problems, especially those dealing with organizations and operation methods, may be limited to cooperatives. Through the agricultural experiment stations, research is aiding in the solution of many of the problems faced by both private and cooperative marketing enterprises.

As a part of the marketing research program of the Oklahoma Agricultural Experiment Station are several projects dealing directly with cooperatives or the results of which may be of value to cooperative associations as well as to other organizations. A project is in progress dealing with a cost analysis of multiple-unit and single-unit cooperative grain elevators. An effort is being made to determine the relative operating efficiency of the two types of cooperative associations. Another phase of this project has been directed at a comparison of farm and elevator storage costs for cash grain. Schedules were taken from both cooperative and private elevators to arrive at storage practices and rates paid by farmers, and from farmers to determine the costs of farm storage.

One phase of a project on dairy marketing has been directed toward a cost analysis of cooperative creamery associations. Another phase of this project considered a study of the operating practices of cream stations in Oklahoma and among the cream stations surveyed were several cooperative associations.

Although there are no specific projects in cotton marketing dealing entirely with cooperatives, there are three projects for which cooperatives serve as a source of data and the results of which will be beneficial to both cooperatives and other cotton processing and marketing units. The subject matter being considered in the three projects are as follows: economy of gin operations, marketing mechanically harvested cotton, and marketing cotton planting seed.

The results of research work in the technical agriculture departments are often of value to businesses dealing with farmers as well as to farmers themselves, and cooperatives, of course, can share the benefits. The close relationship between production and marketing causes cooperative associations to be very conscious of new technological improvement and production changes on the farms of member patrons. Of importance also are research results in closely allied fields, such as farm management, land economics, prices, and finance and credit.

POSSIBLE IMPROVEMENTS IN COLLEGE TRAINING AND RESEARCH.

Most land grant colleges with courses in agricultural economics and cooperative marketing in particular, have a suitable curriculum for students interested in cooperative employment and through their research programs are aiding in solving problems of marketing agencies including cooperatives. Some improvements needed in personnel training and research for cooperatives are listed below. Some of the items in this list apply with equal force to all types of business organizations. Others, for example the sponsorship of fellowships, short courses, and tours, are almost standard practice with some types of business but have been little developed by cooperatives. The list of suggested improvements includes:

1. Greater care in advising students on course work for cooperative employment.
2. Cooperation between college and cooperatives on summer jobs for interested students.
3. Joint college and cooperative sponsored tours of cooperative facilities in the state or area.
4. Sponsoring of fellowships or scholarships by cooperative associations.
5. Attendance of interested students at cooperative meetings.
6. Joint sponsored short courses for various interest groups. (Students, young people, farmer-members, managers, bookkeepers, etc.)
7. Joint discussion groups or seminars on college campuses by college instructors and cooperative leaders.
8. Suggestions by cooperatives for desired research on specific problems.—*Howard S. Whitney.*

The Agricultural Situation

GENERAL

Demand

The Korean war situation naturally thrusts itself into every question regarding the economic position of the nation and introduces great uncertainty into any analysis of anticipated demand conditions. Farmers as well as all other businessmen will be forced to make many adjustments in their evaluation of market prospects as the war progresses and as national policy takes more definite shape.

Perhaps the soundest basis for preparing ourselves to appraise the situation, as it unfolds itself, is to look at the economic condition of the nation immediately before the outbreak of the Korean conflict. This may provide a useful benchmark for later analysis.

As was pointed out in the previous issue of CURRENT FARM ECONOMICS, the level of demand and of economic activity generally has been highly favorable during the first half of 1950 and promised to continue relatively strong during the last half of 1950. However, it may be worthwhile to remember that a great deal of the consumer demand during 1950 has been based upon increased purchases on credit. If granted, the controls on credit buying which have been asked by President Truman will modify the credit purchases on both consumption goods and durable goods, especially houses, home furnishings, and automobiles. This factor, together with the controls over materials and higher taxes requested by the President, probably will change the types of demand. Even though the aggregate demand for all materials need not necessarily be reduced, consumer demand is likely to shift to those commodities which are not urgently needed by the government for military and other security purposes.

Early reports on economic conditions at midyear indicate that industrial activity in June exceeded the peacetime peak reached in October and November of 1948. The Bureau of Agricultural Economics reports that "motor vehicle output in the first half of June was at the annual rate of 9½ million units, by far the highest on record," and that "steel operations and construction activity were close to the maximum rates possible with present resources."*

A substantial part of the increase in construction activity during the second quarter of 1950 was attributable to domestic homebuilding. In addition to this large output of durable goods, the output of nondurable goods such as petroleum products, textiles, chemicals, and rub-

* *The Demand and Price Situation*, U.S.D.A., B.A.E., June, 1950, p. 1.

ber had moved to a new peak prior to recent United States action in Korea.

The gradual increase in civilian employment continued through May and promised to increase further in June. The number of unemployed decreased in May to the lowest level since April, 1949. In view of present conditions, this trend in unemployment probably will continue.

In general, economic activity in the nation was moving toward a new postwar high. Now, however, it appears that civilian production will be cut back to make way for military supplies. If steel and construction activities have been near their effective capacities, then materials for military expansion must come in part from civilian uses.

Price

So far as consumer demand for agricultural products is concerned, the prospects are good. For the time being, the addition and strengthening of controls could direct more demand from durable goods to food products, with consequent rising prices. However, with prospective increased taxes and with labor-management contracts in some industries tied to cost-of-living indexes, and drastic rise in food costs is likely to bring urgent demands for price ceilings.

The June 15 index of prices received by Oklahoma farmers increased 2 points from May to 265 percent of the 1910-14 base period. The index of prices paid by United States farmers (old series) also increased 2 points from May to 260 percent of its base. As a result, the parity ratio for Oklahoma remained unchanged at 102.

A major portion of the gain in Oklahoma agricultural prices may be attributed to the higher prices of livestock and livestock products. In the aggregate, crop prices remained unchanged. However, by commodity groups, significant changes occurred (Table I). In general, the prices of grains declined seasonally while the prices of cotton and cottonseed increased. Miscellaneous crops registered the smallest declines for any group. The sharply higher prices for cattle and hogs more than offset declines for sheep and lambs and caused higher meat animal prices. Prices of dairy products were unchanged while chickens and eggs were down slightly.

Compared with June, 1949, June, 1950 prices were up 3 percent. Again, much higher meat animal prices and slightly higher prices of dairy products contributed to the increase. The prices of chickens and eggs were off about 25 percent. However, much higher prices of grains and of miscellaneous crops than a year earlier more than offset the decline in the price of cottonseed and caused a net gain for crops.

TABLE 1.—Percentage Changes in June Prices from Prices in Selected Months by Commodity Groups: Oklahoma.

	From June 1949	From May 1950
All Commodities	+ 3.1	+ 0.8
Total Crops	+ 3.0	− 0.4
Grains	+ 9.6	− 6.5
Cotton and cottonseed	− 0.4	+ 3.2
Miscellaneous crops	+13.4	−12.5
Total Livestock and Livestock Products	+ 4.2	+ 2.9
Meat Animals	+ 9.8	+ 3.3
Dairy Products	+ 1.4	− 0.4
Chickens and Eggs	−25.4	− 0.6

Income

Although the prices paid by farmers may increase, the Korean conflict should strengthen agricultural prices sufficiently to minimize the decline in 1950 net farm income which was expected earlier this year. —*Leo V. Blakley and G. P. Collins.*

CROPS

Cotton

The demand for cotton is now very strong. The outbreak of war in Korea and a lower cotton acreage than anticipated upset the market, which has been based partly on expectations of "cold" war only and a continued surplus of cotton. The cotton market is "jittery" because of the abnormal uncertainties involved in estimating supply and demand for the next year. A major uncertainty involved in the supply is the amount of production to anticipate from the current crop. The above normal boll weevil population and cool, rainy weather create an indefinite hazard at the present critical stage of the crop. The major unknown factors in demand are (1) the extent of the increase in demand that may arise from rearmament and wars, both "hot" and "cold," and (2) the realization that surpluses of cotton might change into shortages.

While some doubt the soundness of the present price level of cotton, the price may rise even higher. Even if the estimated acreage should produce a very high yield, say equal to the 311 pounds per acre produced in 1948, the production would total only about 12 million bales. On the other hand, if the yield should be as low as in 1945 (234 pounds) the crop would total only about 9.1 million bales. An intermediate estimate based on the 1940-49 average yield of about 270 pounds amounts to about 10.5 million bales and is more commonly accepted.

However, the cool, rainy weather and boll weevil damage may result in lower than average yields. The carryover on August 1 will likely be about 7.0 million bales. Exports for the year ending July 31 are now estimated at 5.6 million bales. Increased domestic demands arising from consumer stockpiling, such as for bed sheets and rearmament, almost insure high domestic consumption next year of perhaps 10.0 million bales or more compared to about 8.8 million bales this year.

Rearming Europe, and "cold" war in the Asiatic areas, both likely mean high export demand for cotton of perhaps 5.0 million bales or more unless a major "shooting" war develops. If a major war does develop, many farmers likely will shift toward more extensive crops, and many cotton pickers will find other occupations, thereby restricting cotton production. Mechanization of hoeing and harvesting cotton is still rather limited. Present "surplus" stocks of cotton may also disappear and shortages develop later in case of a major war. There are some who think that marketing quotas may not apply to cotton in 1951.—*John D. Campbell.*

Pecans

Early field checks indicate a less-than-normal pecan crop for Oklahoma this year. Carryover supplies in the hands of shellers are reported to be low. The 1950 production of walnuts, filberts, and almonds will be lower than the 1949 record production. Prices for pecans probably will average near 1949 prices.

The problem of tree nut imports was subject to an investigation by the United States Tariff Commission to determine whether import quotas, or fees under Section 22, applied during the coming season. Hearings were underway last month.—*James R. Enix.*

Watermelons

Prices received for watermelons probably are averaging lower this year because of heavier production. The acreage in Oklahoma is about 7 percent above last year. For all commercial areas in the United States, the acreage is 4 percent above last year.—*James R. Enix.*

Wheat

Wheat production in the Southwest this year was considerably below last year. Oklahoma and Texas, two principal wheat producers in the Southwest, harvested only 70 million bushels compared with 191 million last year. Kansas, however, is expecting more than the 164 million bushels it harvested last year in spite of an acreage reduction of 14.6 percent.

The nation's wheat crop for this year is estimated at 945 million bushels, the first time in 7 years that it has been below the billion bushel mark. The domestic disappearance for this year is estimated to be 700 million bushels and if exports should total 250 million, total disappearance would be 950 million bushels or about equal to the estimated crop.

Some of the foreign producers of wheat, principally Canada and Australia, also have experienced bad weather for growing wheat. Therefore, the responsibility of a larger-than-expected portion of the world market might fall to the United States, and wheat exported this year might reach as high as 375 million bushels. If this is the case, wheat prices to the farmer for this year should range higher than last year. —*Ray V. Billingsley.*

FEED

Prices of most feed grains have been higher this spring than last, partially because of unfavorable weather and delayed planting conditions. The seasonal decline of feed grain prices is not expected to be as great as a year earlier, although weather conditions during July may alter these expectations if crop prospects continue bright. On July 1 this year, the estimated production of corn stood at 3.2 billion bushels, only .2 billion bushels short of last year's crop. The production of barley and oats, however, is expected to be greater than that of a year ago. An estimated 17 percent increase in rye production will add further to the feed grain potential. Even so, the total feed supply including last year's carryover is expected, at present, to be about 5 to 10 percent below that of a year ago and a large part of that carryover is expected to be under loan or in government ownership.

Pastures generally were in poorer conditions on July 1 this year than on July 1, 1949; however, favorable weather conditions since that time have greatly changed the pasture situation, especially in the spring drouth areas of the southwest.

The index of prices received by farmers for feed grains was up 15 percent from a year ago, wholesale prices of oil seed meals averaged about 12 percent higher, and wheat mill feeds were slightly higher.* Animal protein feeds have shown a decline in prices over last year and at present are about in line with other feeds.

As far as Oklahoma is concerned, we have been an importer of feed grains for several years. This year, even greater than normal supplies may be needed; Oklahoma farmers may hold more livestock through the feeding season, in view of the prospects for later than normal native pasture and earlier than normal wheat pasture.—***Kenneth B. Boggs.***

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* *The Demand and Price Situation*, USDA, BAE, June 1950.

LIVESTOCK AND LIVESTOCK PRODUCTS

Beef Cattle

Meat production this summer is expected to be about equal to that of last summer. Beef supplies, however, may not equal last year's level until late in the season, because the additional cattle on feed are scheduled for later marketing. Grain-fed cattle will account for a large share of the additional beef supply late this year.

*TABLE II.—Stockyards Receipts of Salable Cattle and Calves at Oklahoma City for Selected Periods of 1950, With Comparisons.**

Period	1949		1950		Percent Change From 1949	
	Cattle	Calves	Cattle	Calves	Cattle	Calves
	Number				Percent	
January	36,513	4,711	42,250	4,200	+16	−11
February	31,483	3,925	34,850	3,700	+11	− 6
March	46,675	5,839	46,225	4,675	− 1	−20
April	30,330	4,550	28,025	3,575	− 8	−21
May	21,853	3,165	29,550	3,625	+35	+15
June	47,421	5,711	41,050	4,975	−13	−13
July	22,494	3,614	16,075	2,225	−29	−38
Total	236,769	31,515	238,025	26,975	+ 1	−14

* Compiled from Weekly Livestock Market Reviews, Vol. XXXIII, January 5, 1950-July 14, 1950. United States Department of Agriculture, Production and Marketing Administration Livestock Branch, Oklahoma City, Oklahoma.

*TABLE III.—Prices Received by Producers for Steers and Calves by Classes and Grades at Oklahoma City, Week Ending July 14, 1950, With Comparisons.**

Item	Grade and Weight (lbs.)	Week Ending		Percent Change from 1949
		July 15, 1949	July 14, 1950	
		Dollars per cwt.		Percent
Slaughter:				
Steers	Gd. 700-900	24.50	29.75	+21
	Med. 700-1100	21.25	26.25	+24
	Com. 70-1000**	17.30	22.75	+32
Calves	Gd. and Ch. 500 down	23.40	28.50	+22
	Com. and Med. 500 down	18.60	23.60	+27
	Cull 500 down	13.90	18.30	+32
Feeder and Stocker:				
Steers	Gd. 500-800	21.00	27.00	+29
	Med. 500-1000	17.75	24.45	+38
	Com. 500-900	15.50	21.40	+38
Calves (Steer)	Gd. and Ch. 500 down	23.50	28.75	+22
	Med. 500 down	19.50	25.25	+29

* Compiled from Weekly Livestock Market Reviews, Vols. XXXII, July 15, 1949 and XXXIII, July 14, 1950. United States Department of Agriculture, Production and Marketing Administration, Livestock Branch, Oklahoma City, Oklahoma.

** 700-1100 for 1950.

During June and the first two weeks of July, receipts of cattle and calves at Oklahoma City ranged from 13 to 38 percent below marketings a year ago (Table II). So far this year, calf receipts have averaged 14 percent below a year ago, whereas cattle marketings have been slightly above last year's level.

Prices of cattle are now higher than last year. At Oklahoma City greatest advances above price levels a year ago have characterized the lower grades. (Table III). Feeder and stocker steers grading medium and common were 38 percent higher for the week ending July 14 than for the same week a year earlier. Good slaughter steers and good to choice slaughter calves were selling around 21 to 22 percent above last year's levels.

If the war threat takes a turn for the worse, prices probably will hold steady or rise higher during the remainder of the summer than earlier anticipated. Lower grades of cattle likely will increase less in price than the better grades.—*Robert L. Tontz.*

Dairy

The peak milk flow for 1950 came a little late, compared with recent years, due to the cold, wet spring which retarded pastures. Six states reported the highest June production per cow on record; in Oklahoma, however, the report showed the lowest for the month in 21 years.* Drought conditions prevailed throughout most of June in Oklahoma.

This is the season when surplus fluid milk and manufactured dairy products occur each year. The fact that surpluses exist again this year is not disturbing. However, the fact that they are larger than usual and are piling up in government stocks under the support program is disturbing.

In Oklahoma, prices paid producers for milk and butterfat going into butter will permit margins to processors and the selling of a large percent of the production to the C.C.C. at 90 percent of parity prices.

Dairymen should be alert to (1) The urgent need to deliver high quality milk and cream to the processor so that the manufactured product will meet the strictest consumer demand, or for government storage. Each should remember that he is producing a highly specialized and needed food product; (2) Work with processors in encouraging more consumption of dairy products. As a producer he can talk over these things more effectively than anyone else with his grocer and other local people; and (3) New methods which will lower costs of producing.

* Milk production July 1, 1950, B.A.E., U.S.D.A., Washington, D. C.

Milk producers listen attentively to Dr. Harold Olson (left, standing) of the Oklahoma A. & M. college dairy department as he discusses quality improvement. Producers quickly put into action the suggestions given at such meetings, realizing the urgent need to deliver high quality milk and cream to the processor.

Much milk is always used in modern military operations. Should the Korean war become more extensive, the present surplus supplies would quickly be used, and much more needed.

For the months ahead dairymen should remember the importance of their business to themselves and to the national economy. Also, that dairying is one of the farm enterprises which requires labor, feed, and careful scientific planning to make a success. In Oklahoma, we are vulnerable to extensive and severe price deductions for low quality products; therefore, there is a need for daily alertness to good marketing practices.—*A. W. Jacob.*

Hogs

The 1950 spring pig crop is the third largest on record. The number of spring pigs saved was estimated to be 60,079,000, or 3 percent more than a year ago. The number of sows farrowing this spring is estimated at 9,518,000 head; this is a 5 percent increase over the number farrowing last spring, but less than the 7 percent gain indicated last December. This decrease resulted primarily from a decrease in hog prices during the winter, and the rising prices of corn with the hog-corn ratio dropping to only a little above average.

The report of fall breeding intentions indicate that the number of sows farrowing in the fall of 1950 will be approximately 6,017,000. If the number of pigs saved per litter equals the ten-year average and fall farrowing intentions materialize, the 1950 fall pig crop will be about 39

million head. This would be 5 percent larger than in 1949 and would result in a combined pig crop of about 99.1 million head for 1950.

Meat production has about kept pace with population growth, but there may be more beef and pork available the last quarter of this year than for the same quarter last year. The extra pork will come from the larger pig crop. Pork prices are expected to continue at about the same level as a year ago; however, the trend of world affairs could have a great deal of influence in future months.

The estimated spring pig crop for Oklahoma is 710,000 head as compared to 662,000 head a year ago. An estimated 111,000 sows farrowed this spring in Oklahoma, an increase over the 105,000 head of last year. Breeding intention reports on June 1 indicate fall sow farrowings to be 101,000 head as compared to 97,000 in the fall of 1949. If the number of pigs saved per litter is equal to the 10-year average and fall farrowing intentions are realized, the fall crop would be about 646,000 head. This would bring the total 1950 pig crop for Oklahoma (fall and spring) to 1,356,000 head as compared to 1,302,000 a year ago. —*Howard S. Whitney and Raymond L. Wegener.*

Poultry

Poultry and egg prices are slightly higher than they were a month ago, but well below last year's prices at this time.

In view of the Korean situation and plans for at least partial mobilization of the armed forces, the outlook for poultry and eggs is somewhat more favorable.

For example, supplies of eggs from farms and in cold storage would have been more than ample, but if we go to a war footing some of the surplus is likely to be used. A man in the army will eat more eggs than the same man in civilian life. Data* indicate that the army uses about 578 eggs per man per year, while civilians use about 350 eggs per person. This means that a man going from civilian life to army life will, in one form or another, increase his consumption about 4½ eggs per week. If, for example, three million men should suddenly quit civilian life for the army, the egg consumption of that group would increase by about 4½ million dozen per month. Such increased consumption would help decrease egg supplies and strengthen egg prices.

Moreover, increased red meat purchases by the armed forces would help keep meat prices high and thus encourage increased civilian consumption of eggs. Poultry meat, now in ample supply, may also be affected in the same way as eggs. Even now, people are eating more

* *Agricultural Statistics*, 1948, U. S. Department of Agriculture.

poultry because of relatively high red meat prices. Further increases in beef and pork prices might well accentuate the purchase of eggs and poultry meat.

If the Korean situation should end quickly and the country returns to a "cold war" economy, the outlook for poultry and eggs will continue to be poor. There may be some seasonal rise in price for eggs, but it is likely to be smaller than normal and come later this year. The best quality, farm-fresh eggs are likely to show the highest seasonal increase. *—L. A. Parcher.*

Sheep, Lambs and Wool

Sheep and Lambs.—The demand for both sheep and lambs has been strong during the first six months of 1950. In the immediate future, according to some reports, prices may be expected to tend lower, mostly as a result of the normal seasonal price pattern for sheep and lambs. There are, however, three factors that may cushion the expected seasonal decline. First, sheep and lamb numbers on farms are down to 30.8 million head, which is considered extremely low (It is about 45 percent below the 1945 level of production). Second, consumer income and industrial production are at a record high, which assures a continuing strong demand; and, finally, the demand for wool may increase, which would tend indirectly to strengthen the market for both sheep and lambs.

Wool.—World wool production has increased the past few years to within 3 percent of the 1936-40 average (Table IV). This increased production, mostly in the Southern Hemisphere, has tended to bring

TABLE IV.—Wool, Estimated World and Domestic Production, Grease Basis, Average 1936-40, 1941-45, Annual 1946 through 1950

Region	Five-year Average		Annual				
	1936-40	1941-45	1946	1947	1948	1949	1950
	Million Pounds						
N. America	452.7	457.3	369.7	334.7	305.2	273.5	265.5
Europe[1]	483.4	446.0	400.5	397.1	431.3	443.7	453.6
Africa	336.8	322.3	274.4	267.8	280.6	277.9	286.4
Asia[2]	344.2	336.7	339.6	341.8	354.5	353.1	365.7
S. America	638.9	757.4	809.5	754.3	689.0	706.3	715.6
Australia	1051.9	1088.0	976.8	973.0	1031.0	1045.5	1100.0
New Zealand	313.8	350.4	367.0	362.0	367.0	370.0	375.0
World Total	3930.0	4040.0	3820.0	3720.0	3760.0	3790.0	3890.0
United States	425.3	428.5	341.8	309.4	280.5	253.4	247.0

SOURCE: *Foreign Crops and Markets*, Vol. 60, No. 25, June 19, 1950, U. S. Department of Agriculture, Washington, D. C.

[1] Two-year average.

[2] Excluding U. S. S. R.

wool production more nearly in line with consumption which, since the end of World War II, has been running about 800 million pounds per year above the annual clip.

The annual consumption of apparel wool has average about 3.7 pounds per capita since the war compared with an average of 2.1 pounds for the period 1936-1940. At the level of consumption that prevailed during the past three years, total world stocks of apparel wool were reduced considerably. The extent of the decline in world stocks of apparel wool is indicated by the total stocks on hand for the seasons, 1947-48, 1948-49, and 1949-50, which were estimated at 4.2, 3.7, and 2.8 billion pounds, respectively.

Wool prices have been comparatively strong, reflecting the demand of an increased population, high rate of industrial production, and a high level of consumer income.

The strong demand and high level of civilian consumption, which seem certain to continue if not strengthen, and current, recognized changes in governmental policy, which will move in the direction of increased procurement by the military element in world markets, may be expected to strengthen wool prices in the months ahead provided regulatory measures are not invoked by statutory law.—*Raymond B. Marshall.*

Prices Received by Farmers, Price Indexes, and Indexes of Purchasing Power of Oklahoma Farm Products
(1910-1914=100)

	Prices					Price Indexes					Purchasing Power Indexes [1]				
		1950					1950					1950			
	1949 June	Mar.	Apr.	May	June	1949 June	Mar.	Apr.	May	June	1949 June	Mar.	Apr.	May	June
	(Dollars)					(Percent)					(Percent)				
Grain						197	226	229	231	216	77	90	90	90	83
Wheat (bu.)	1.72	2.03	2.05	2.05	1.90	200	236	238	238	221	78	94	94	92	85
Corn (bu.)	1.33	1.27	1.32	1.40	1.40	205	195	203	215	215	80	78	80	83	83
Oats (bu.)	.63	.86	.86	.88	.82	140	191	191	196	182	54	76	75	76	70
Barley (bu.)	.94	1.13	1.13	1.16	1.15	159	192	192	197	195	62	76	76	76	75
Rye (bu.)	1.00	1.08	1.13	1.18	1.19	116	125	132	137	138	45	50	52	53	53
Grain Sorghums (bu.)	1.20	1.13	1.15	1.18	1.18	176	166	169	173	173	68	66	67	67	66
Cotton and Cottonseed						260	237	249	251	259	101	94	98	97	100
Cottonlint (lb.)	.295	.270	.285	.287	.295	261	239	252	254	261	102	95	99	98	100
Cottonseed (ton)	50.00	42.50	44.00	45.00	47.00	256[2]	217	225	230	240	100	86	89	89	92
Miscellaneous Crops						142[2]	177	178	184	161	55[2]	71	70	71	62
Potatoes, white (bu.)	1.75[2]	1.80	1.80	1.90	1.20	158[2]	162	162	171	108	61[2]	65	64	66	42
Potatoes, sweet (bu.)	2.25	2.45	2.50	2.50	2.40	183	199	203	203	195	71	79	80	79	75
Hay, all loose (ton)	10.60	15.70	15.80	16.30	15.70	120[2]	178	179	185	178	47	71	70	72	68
Total Crops						234[2]	231	240	242	241	91[2]	92	94	94	93
Meat Animals						369	366	367	392	405	144	146	144	152	156
Cattle (cwt.)	19.70	20.20	20.50	21.50	22.30	408	418	424	445	462	159	167	167	172	178
Calves (cwt.)	22.50	23.10	23.30	24.30	24.90	377	387	390	407	417	147	154	154	158	160
Sheep (cwt.)	10.00	10.40	10.80	10.80	10.40	216	224	232	232	224	84	89	91	90	86
Lambs (cwt.)	25.30	24.10	25.50	25.50	25.00	434	414	437	437	429	169	165	172	169	165
Hogs (cwt.)	19.20	16.30	15.60	18.10	18.70	273	232	222	257	266	106	92	87	100	102

Prices and Indexes, Cont'd.

	Prices					Price Indexes					Purchasing Power Indexes[1]				
		1950					1950					1950			
	1949 June	Mar.	Apr.	May	June	1949 June	Mar.	Apr.	May	June	1949 June	Mar.	Apr.	May	June
	(Dollars)					(Percent)					(Percent)				
Dairy Products						219[2]	232	225	223	222	85[2]	92	89	86	85
Milk, wholesale (cwt.)	3.80[2]	3.90	3.65	3.65	3.75	197[2]	202	189	189	194	77	80	74	73	75
Butter (lb.)	.61	.63	.62	.62	.63	272	281	277	277	281	106	112	109	107	108
Butterfat (lb.)	.52	.56	.55	.54	.53	222	239	235	231	226	86	95	93	90	87
Chickens and Eggs						213	170	163	160	159	83	68	64	62	61
Chickens (lb.)	.216	.195	.193	.184	.184	230	207	205	196	196	89	82	81	76	75
Eggs (doz.)	.367	.278	.263	.261	.259	206	156	148	147	146	80	62	58	57	56
Total livestock and Livestock Products						309	301	300	313	322	120	120	118	121	124
All Commodities						257[2]	252	258	263	265	100[2]	100	102	102	102

SOURCE: Compiled by Dept. Agri. Econ., Oklahoma A. and M. College, from data supplied by Bureau of Agricultural Economics, U.S.D.A., Oklahoma City, Oklahoma, and Washington, D. C.

For previous years, see Oklahoma Agri. Exp. Sta. Bul. 238, *Oklahoma Farm Price Statistics*, and *Current Farm Economics*, Okla. Expt. Sta. Series 49, Vol. 13, Nos. 1 and 2, Feb.-Apr., 1940. Tables 16-19, and subsequent issues.

[1] The ratio of prices received by farmers to prices paid by farmers for commodities used in living and production.
[2] Revised.

—*Joyce Van Den Broeder.*

Price Indexes in the United States and Oklahoma and Indicators of Changes in Domestic Demand.

Year and Month	PRICE INDEXES Average 1910-14=100					INDICATORS OF CHANGES IN DOMESTIC DEMAND	
	Index of Prices Received by Farmers		Index of Prices Paid by Farmers United States	All-Commodity Index of Wholesale Prices United States	Oklahoma Hog-Corn Price Ratio[2]	Index of Demand Deposits Oklahoma[3] 1923-25=100	Index of Factory Payrolls[4] [7] 1939=100
	Oklahoma[1]	United States					
1910	108	102	98	103	14.43		
1911	98	95	101	95	9.17		
1912	96	100	100	101	11.15		
1913	101	101	101	102	11.21		
1914	97	101	100	99	10.55		
1915	100	98	105	102	10.48		
1916	125	118	124	125	10.61		
1917	193	175	149	172	9.52		
1918	226	202	176	192	9.20		
1919	236	213	202	202	11.14		
1920	221	211	201	225	12.55		
1921	109	125	152	142	17.95		
1922	130	132	149	141	13.39		
1923	161	142	152	147	7.44	97.0[5]	
1924	165	143	152	143	7.26	95.8	
1925	164	156	157	151	11.05	106.5	
1926	134	145	155	146	16.44	102.0	
1927	134	139	153	139	14.54	100.5	
1928	151	149	155	141	10.72	100.3	
1929	145	146	153	139	10.65	92.3	
1930	112	126	145	126	11.04	77.4	
1940	92	98	123	114	8.61	92.0[6]	113.6
1941	117	122	130	127	13.77	86.6	164.9
1942	152	157	152	144	14.35	107.4	241.5
1943	172	188	167	150	11.69	162.3	331.1
1944	181	195	176	152	10.56	215.9	343.7
1945	184	202	181	154	11.95	285.3	293.5
1946	226	233	203	177	11.56	335.3	271.1
1947	286	278	246	222	13.34	348.5	326.9
1948	293	287	264	241	12.69	353.3	351.4
1949	257	251	253	226	15.00	347.4	----
1950 Jan.	241	235	250	220	12.56	356.6	329.7
Feb.	246	237	250	223	13.22	353.6	330.1
Mar.	252	237	251	223[7]	12.83	353.6	333.5
Apr.	258	241	254	223[7]	11.82	349.6	337.1
May	263[7]	247	258	228	12.93	344.7	349.0
June	265	247	260	229	13.36	346.0	

SOURCES: Indexes of Oklahoma prices received by farmers, computed by Dept. Agri. Econ., Okla. Agri. Exp. Sta., Stillwater, Oklahoma. Indexes of U. S. prices received and prices paid by farmers and indexes of U. S. wholesale prices, from *Agricultural Prices*, Bur. of Agri. Econ., U. S. D. A., Washington, D. C. Indexes of demand deposits in Oklahoma, calculated by Dept. Agri. Econ., Okla. Agri. Exp. Sta., from data furnished by Federal Reserve Board, Washington, D. C. Indexes of factory payrolls, from U. S. Department of Labor, Bureau of Labor Statistics, Washington, D. C.

[1] Prices received by Oklahoma farmers for 25 commodities. Revised, 1910-1939, in January, 1940.

[2] These figures indicate the number of bushels of corn that could be purchased with 100 pounds of live hogs at current Oklahoma prices received by farmers.

[3] Demand deposits of Oklahoma member banks of the Federal Reserve System located in places under 15,000 population.

[4] Unadjusted for seasonal variation.

[5] Nine months only. Not available prior to April 1925.

[6] Index numbers based on net demand deposits prior to 1936 and upon gross demand deposits since that date. For a discussion of this index see CURRENT FARM ECONOMICS, Oklahoma Agricultural Experiment Station Series 49, Vol. 13, Nos. 1 and 2. Feb.-Apr. 1940. p. 41.

[7] Revised.

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